REMARKS

The Official Action mailed July 30, 2003, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to November 30, 2003. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statements filed on July 16, 2001, January 31, 2002, April 12, 2002, May 3, 2002, and November 25, 2002.

Claims 1-20 were pending in the present application prior to the above amendment. Claims 9-17 have been canceled, claims 1-8 have been amended to better recite the features of the present invention, and new claims 21-38 have been added to recite additional protection to which the Applicants are entitled. Accordingly, claims 1-8 and 18-38 are now pending in the present application, of which claims 1-4, 21 and 22 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 3 of the Official Action rejects claims 1-8 and 17-20 as obvious based on the combination of U.S. Patent No. 5,192,644 to Ohta et al. and U.S. Patent No. 4,832,986 to Gladfelter et al. The Applicants respectfully submit that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present invention, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some

teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 1-4 have been amended to recite an insulating film comprising silicon oxide formed on a first insulating film, an AlNO film or an AlN film, wherein the first insulating film, the AlNO film or the AlN film has a thermal conductivity of 200 $Wm^{-1}K^{-1}$ or more and a thickness of 500 Å to 3 μm. Ohta and Gladfelter do not teach or suggest at least the above-referenced features of the present invention.

Since Ohta and Gladfelter do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 4 of the Official Action rejects claims 9-12 as obvious based on the combination of Ohta, Gladfelter and U.S. Patent No. 5,283,214 to Knudsen. Knudsen does not cure the deficiencies in Ohta and Gladfelter. The Official Action relies on Knudsen to allegedly teach that "the theoretical value for thermal conductivity of aluminum nitride is 320 W/mK ... and thermal conductivities in the range of 200-250 W/mK have been reported/acquired" (page 4, Paper No. 10). Ohta, Gladfelter and Knudsen, either alone or in combination, do not teach or suggest an insulating film comprising silicon oxide formed on a first insulating film, an AlNO film or an AlN film,

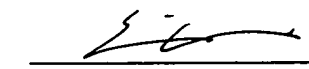
wherein the first insulating film, the AlNO film or the AlN film has a thermal conductivity of 200 $Wm^{-1}K^{-1}$ or more and a thickness of 500 Å to 3 μm.

Paragraph 5 of the Official Action rejects claims 13-16 as obvious based on the combination of Ohta, Gladfelter and U.S. Patent No. 5,042,917 to Fujita et al. Fujita does not cure the deficiencies in Ohta and Gladfelter. The Official Action relies on Fujita to allegedly teach "a substrate assembly, comprising an aluminum nitride film 5 ... [having] a thickness of about 1800 Å" (Id.). Ohta, Gladfelter and Fujita, either alone or in combination, do not teach or suggest an insulating film comprising silicon oxide formed on a first insulating film, an AlNO film or an AlN film, wherein the first insulating film, the AlNO film or the AlN film has a thermal conductivity of 200 $Wm^{-1}K^{-1}$ or more and a thickness of 500 Å to 3 μm.

New claims 21-38 have been added to recite additional protection to which the Applicants are entitled. For at least the reasons provided above, the Applicants respectfully submit that new claims 21-38 are in condition for allowance.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



Eric J. Robinson
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.
PMB 955
21010 Southbank Street
Potomac Falls, Virginia 20165
(571) 434-6789